or to the Chætopods (*Aphrodite*) the biliary secretion tends to become localized in small cæca inserted upon the sides of the intestinal canal. These cases, however, which are almost always coincident with particular states of the digestive tube, are too rare and too imperfect to evidence a true morphological relationship with the arrangements proper to the higher Invertebrata. The latter are, on the other hand, realized in all their essential characters in a Helminth which I have lately been enabled to study, and the examination of which is most instructive in this point of view.

This Nematoid worm, belonging to the group Agamonema, Dies., lives encysted in the muscles of various fishes, and was sent to me by M. H. Filhol, who obtained several examples of it during his stay in Campbell Island. In this species the initial or œsophageal region of the digestive tube is rather slender, and presents no other glands than small follicles of irregular contour and containing a viscid, hyaline liquid, in which are scattered fine greyish granules. The middle intestine, which follows, is easily recognizable by the difference of its diameter from that of the preceding portion; but this difference is due less to a considerable increase in the calibre of the intestinal canal, than to the development of an exterior brownish mass which surrounds it and seems to become confounded with it.

If this mass be torn to pieces and observed with a power of 120 and then of 360 diameters, it is found to be composed of glandular tissue. It consists, in fact, of a multitude of cæca bounded by a fine membrane which is slightly thickened at the periphery; in their interior appear a great number of rounded, brownish or yellowish granules; the absence of epithelial elements is easily explained by the state of the animal.

The structure of the organ, recalling in all its principal features the constitution of the liver in the Crustacea and Mollusca, and its relations like those which the organ affects in some of them (Squillidæ, &c.), obliged us to consider it as a new form in the Vermes, and show that, if most of these animals diverge in this respect from the other Invertebrata, there are some nevertheless which approach them, and like them possess a true hepatic gland.—*Comptes Rendus*, April 15, 1878, p. 974.

Wartelia, *a new Genus of Annelids, erroneously regarded as Embryos of* Terebellæ. By M. Giard.

In 1845, after describing and figuring the transformations of *Terebella nebulosa*, Mont., M. H. Milne-Edwards said that he was inclined to believe that, from ignorance of these metamorphoses, the larvæ of *Terebellæ* might have been taken for distinct types, and thus the number of genera might have been uselessly increased. Since then the larvæ of the Annelids have been much studied, and the opposite mistake has rather been made, chiefly owing to these studies having been directed too much to larvæ captured in the muslin net, and too little to the more difficult task of rearing the

animals from the eggs. It is thus that Claparède, in his 'Beobachtungen über Anatomie und Entwicklungsgeschichte wirbelloser Thiere an der Küste von Normandie angestellt' (pp. 63–69, pl. viii. figs. 12, 13, and pl. ix.), describes and figures, as stages in the evolution of *Terebella conchilega*, some young Annelids which really have no genetic connexion with this type.

M. Giard has recently found the same Annelid at Wimereux. It lives in the adult state upon the Hydroid *Laomedea gelatinosa*, on the branches of which small transparent projecting tubes may often be found, although, as they exactly imitate the gonothecæ of the Hydroid, they may easily escape observation. Each tube is inhabited by a pretty transparent Annelid, which only differs from the supposed embryo of *Terebella conchilega* (Claparède, pl. ix. fig. 6) by having its seven tentacles nearly of equal length, at least the median one does not nearly so much exceed the six lateral tentacles in length. The presence of the generative products in many individuals proves that they are adult. The existence of voluminous otocysts precisely like those of Mollusca, and the arrangement of the *tori uncinigeri* at the extremity of the ventral cirri of the posterior part of the body, lead to the location of this Annelid in a new genus much further removed from the *Terebellæ* than might be supposed, and presenting affinities with several families of Polychæta. This genus M. Giard names *Wartelia*, in honour of one of his pupils, M. Adolphe Wartel, who discovered the Annelid on the *Laomedea* at Wimereux; the species is named *W. gonotheca*, in allusion to the curious mimicry above mentioned. The arrangement of the tubes of *Wartelia* also gives them a certain resemblance to the tubicolar Rotifera.

This discovery leaves the embryogeny of *Terebella conchilega* completely unknown; and the best observations which we possess on the development of *Terebella* are those of Milne-Edwards on *T. nebulosa*, Mont.

Wartelia is probably allied to a tubicolar Annelid of the Mediterranean described by Busch*, and to the genus *Lumara* of Stimpson†. Perhaps also the larva figured by Agassiz ‡ as the embryo of *T. fulgida*, Ag., is the embryo of a form allied to *Wartelia*.—*Comptes Rendus*, May 6, 1878, p. 1147.

On the Molluscan Fauna of New Guinea.

By M. C. Tapparone-Canefri.

The author gives the following as the results of his examination of the Papuan Mollusca and especially of a fine collection of 320

* Beob. über Anat. und Entw. einiger wirbell. Seethiere (Berlin, 1851), p. 71, pl. xi. fig. 7.

† Marine Invertebrates of Grand Manan, p. 30.

‡ "On the Young Stages of a few Annelids," Ann. Lyc. Nat. Hist. New York, vol. viii. pp. 320, 321, pl. vii. figs. 19, 19*a*.